



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,482	11/26/2001	Lorthar Diehl	10191/1897	2543

26646 7590 07/16/2003

KENYON & KENYON  
ONE BROADWAY  
NEW YORK, NY 10004

EXAMINER

TUNG, TA HSUNG

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/913,482

Applicant(s)

DIEHL, L.

Examiner

T. TUNG

Group Art Unit

1753

Paper No. 9

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 5/22/03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 22-46 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☒ Claim(s) 22-32, 45, 46 is/are allowed.
- ☒ Claim(s) 33-44 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other: \_\_\_\_\_

Office Action Summary

Art Unit: 1102

Claims 33-44 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The subject matter of these claims is confusing. As stated in the paragraph connecting pages 2 and 3 of the specification, the key to applicant's invention resides in providing an internal resistance of the solid electrolyte near the electrical leads to be significantly higher than the internal resistance of the solid electrolyte adjacent the electrodes.

Claims 33-44 require a lead to have a lower resistance than an electrode. Lower resistance for the lead would presumably provide lower internal resistance of the solid electrolyte in the vicinity of the leads. Kato 4,668,375 appears to support this presumption in the paragraph connecting columns 2-4 and at col. 8, lines 48-57. These passages state that a higher metal content in a layer makes it more conductive and results in a decrease in contact resistance. Therefore, having a lead that is less resistive than an electrode would appear to have the effect of lessening the internal resistance near the lead, instead of the desired increase in internal resistance, and would be antithetical to the key of the invention.

Claims 33, 34, 36, 39, 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al 4,668,375.

As discussed in the previous Office action, Kato is seen to meet these claims under either of two interpretations. One, element 11 is an electrode, while element 18 is a lead. Elements 13

Art Unit: 1102

and 16 can be regarded as either part of the electrode or as part of the lead. Element 18 has a higher metal content than element 11 and thus has a lower resistance. Two, element 31 is an electrode, while element 11 is a lead. Elements 13 and 16 once again can be regarded as part of the electrode or the lead. Element 11 has a higher metal content and thus has a lower resistance than element 31.

Applicant argues that Kato does not disclose the relative metal content of the electrode as compared to the lead in the manner set forth in the instant claims.

This argument is not persuasive and is somewhat confusing. It is not evident if applicant is quarreling with the examiner's description of Kato, or with the fact that Kato does not intend to use element 31 as an electrode.

First, the examiner's description of the patent is believed to be accurate. If applicant still takes the position that the examiner has erroneously described Kato, he is called upon to point out the specific error(s). Second, it is well-settled that intended use is not a structural distinction. Whether the patent intended to employ element 31 as an electrode is irrelevant. The element is a conductor and is capable of acting as an electrode. That is all that's required.

Applicant then contends that the examiner made unsupported assertions that are apparently within the personal knowledge of the examiner, and that the examiner should provide an affidavit and/or published information to support these assertions.

This contention is seen to be totally without merit. It is not understood what assertions made by the examiner are meant. If applicant meant the assertion that a less resistive lead would

Art Unit: 1102

presumably result in a lower internal resistance of the solid electrolyte adjacent the lead, rather than a higher internal resistance, that assertion is seen to be supported by Kato at the passages previously alluded to (paragraph connecting columns 2-3 and at col. 8, lines 48-57). Certainly, a prima facie case has been made, and it would be applicant's burden to explain or buttress his apparent position that a lower resistance in the lead actually results in a higher internal resistance of the solid electrolyte near the lead. If applicant meant the examiner's assertion that intended use is irrelevant, that is axiomatic and is not a matter within the peculiar knowledge of the examiner.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al '375.

Applicant argues that the examiner has not made a case as to why one would modify Kato by adopting a ceramic content of 20 volume percent zirconia for the lead.

This argument is not persuasive. The percentage of the zirconia content for the lead (11 or 31) is a matter of choice, unless there is criticality, or some unexpected result. One of ordinary skill in the art would use as much zirconia as is needed. Applicant has not demonstrated any criticality or unexpected result from the recited zirconia percentage.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al '375 in view of Radford et al 3,843,400 or Haecker et al 4,283,441.

Applicant merely argues that Radford or Haecker does not cure the deficiencies of the primary reference. This is not a separate and distinct argument, and no further comment is needed.

Art Unit: 1102

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al '375 in view of Friese et al 5,314,604.

This claim differs by calling for the electrode to have a pore-forming agent.

Friese discloses the well-known use of a pore-forming agent (theobromine) to provide porosity in a sensor component. See col. 4, lines 21-38. It would have been obvious for Kato to incorporate a pore-forming agent in its electrodes, since this is a convenient and inexpensive way to provide the porosity in the electrodes in situ as the sensor is being fabricated.

Claims 41, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al '375 in view of Iino et al 4,943,330 or Kojima et al 5,895,591.

Here again, applicant merely argues that the secondary references do not cure the deficiencies of the primary reference. No further comment is needed.

In the replacement paragraph set forth in the May 22, 2003 response, at the last line thereof, "sot" apparently should be --so--.

The examiner can be reached at 703-308-3329. His supervisor Nam Nguyen can be reached at 703-308-3322. Any general inquiry should be directed to the receptionist at 703-308-0661. A fax number for TC 1700 is 703-872-9310.

Application/Control Number: 09/913,482

Page 6

Art Unit: 1102

A handwritten signature in black ink, appearing to be 'Ta Tung', written in a cursive style.

Ta Tung

Primary Examiner

Art Unit 1753